Appln. No. 10/657,249
Amd. dated June 1, 2007
Reply to Office Action of January 5, 2007
and Advisory Action of April 23, 2007

## Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:
Listing of Claims:

- 1. (Cancelled)
- 2. (Withdrawn) A method for detecting at least one organophosphorus or carbamate compound in a sample comprising contacting said sample with enzyme acetylcholinesterase immobilized in a sol-gel or a membrane, wherein the enzyme is inhibited by at least one of the organophosphorus or carbamate compounds.
- 3. (Withdrawn) The method according to claim 2 wherein the sample is contacted with acetylcholinesterase immobilized in a sol-gel or a membrane wherein the pH ranges from about 5.95 to about 11.52.
- 4. (Withdrawn) The method according to claim 2 wherein the compound detected is an organophosphorus compound and 1% bromine is added to the organophosphorus compound prior to addition to the immobilized enzyme.
- 5. (Withdrawn) The method according to claim 2 wherein the enzyme is immobilized in a sol-gel.

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- 6. (Withdrawn) The method according to claim 2 wherein the enzyme is immobilized in a membrane.
  - 7. (Cancelled)
- 8. (Currently Amended) The detector according to claim 7—19 wherein the acetylcholinesterase is immobilized in a sol-gel.
- 9. (Currently Amended) The detector according to claim 7-19 wherein the acetylcholinesterase is immobilized in a membrane.
- 10. (Currently Amended) The detector according to claim 7—19 wherein the package comprises a semipermeable polyethylene bag that contains the membrane or sol-gel immobilized acetylcholinesterase, which semipermeable polyethylene bag is opened after exposure to expose—the acetylcholinesterase to the—inhibitor to commence the enzyme assay.
- 11. (Currently Amended) The detector according to claim 1—19 wherein the sol-gel is glass prepared from tetramethylorthosilicate.
- 12. (Previously Presented) The detector according to claim 11 wherein the acetylcholinesterase is stabilized with a sugar.

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- 13. (Previously Presented) The detector according to claim 12 wherein the sugar is trehalose.
- 14. (Currently Amended) The detector according to claim 1-19 wherein the sol-gel is contained in a tube.
- 15. (Currently Amended) The detector according to claim  $\frac{1}{2}$  wherein the sol-gel particles are from 230-400 mesh.
  - 16. (Cancelled)
  - 17. (Cancelled)
  - 18. (Cancelled)
- 19. (New) A detector for detecting at least one compound selected from the group consisting of organophosphorus and carbamate compounds which are inhibitors of the enzyme acetylcholinesterase, wherein acetylcholinesterase is immobilized in a sol-gel or in a membrane, wherein said sol-gel or membrane containing acetylcholinesterase is packaged in a semipermeable material that controls access of acetylcholinesterase inhibitors.